

## BIBLIOGRAPHICAL NOTICES.

ART. XII.—*Surgical Anatomy*. By JOSEPH MACLISE, Surgeon. (With coloured plates.) Part IV. Philadelphia: Blanchard and Lea, 1851.

WE are very glad to see that this excellent work approaches so nearly to its conclusion. "The four parts now issued contain sixty-two plates, being the number originally promised and expected to complete the work, when the first part was published. The increased number of plates will, however, render a fifth part necessary, which will shortly be ready. Price only one dollar."

Our readers will, perhaps, recollect that the third part of this book, noticed in a former number of the Journal, was taken up with the illustration of *Hernia*, the particulars of which were very fully exposed. We shall, in the course of the following notice, set forth the topics which the present fasciculus is intended to exhibit.

Plate forty-seven, the first of this division, represents "the Surgical Dissection of the principal Blood-vessels and Nerves of the Iliac and Femoral regions." The author remarks, "The main artery of the lower limb is usually described as divisible into parts, according to the regions which it traverses. But, as in examining any one of these parts, irrespective of the others, many facts of chief surgical importance are thereby obscured and overlooked, I propose to consider the vessel as a whole, continuous from the aorta to where it enters the popliteal space"—p. 105. And this he does without neglecting the relational anatomy of each of the ordinary artificial divisions of the vessel. This we consider one of the important characteristics of Mr. MacLise's treatise; that he looks upon and demonstrates the anatomy of each region, and of each prominent element of each region, as part of the whole organism, having with it inseparable ties, but more particularly connected with some great segment of the body. In the chapter explanatory of the plate, the mode of origin of the iliac vessels is indicated, together with the point on the skeleton which may serve as a guide to the seat of the division of the aorta; then the course of the vessels is traced, and their connections with the other component parts of the iliac and femoral regions are described, until they leave this part of the lower limb. The best points for securing the artery in the different sections are also commented on.

Plates forty-eight and forty-nine illustrate "the Relational Anatomy of the Male Pelvic Organs." And in connection with them, the relation of the organs of the abdomen to those of the pelvis is referred to in the different acts to which both are subject under the influence of the thoracic and abdominal muscles. The situation, connections, form, dimensions, &c., of the *urinary bladder*, under varying circumstances; the disposition of the *peritoneum* with reference to this organ; the important parts situated about the neck of the bladder and the rectum; the vascular peculiarities of the pelvic cavity—these are the subjects of the comments attached to the plates.

"The Surgical Dissection of the Superficial Structures of the Male Perineum" is exhibited in plates fifty and fifty-one. These plates present five different views of this part. The chief topics which the author elucidates in his explanation are, the continuity of the superficial fascia of the abdomen and the perineum, and the mode in which this important tissue is distributed over the lower part of the belly, the scrotum, and the perineum, so that its great function, in a surgical point of view, is effected, viz., the limitation of urinary infiltration; and the constitution of the perineum beneath this fascia, its component structures, its boundaries, and its relations to the different organs contained in the pelvis. And to give the remarks a practical bearing, the operations implicating these parts are glanced at. This is an exceedingly interesting and valuable chapter. It forms an admirable introduction to that which

succeeds it, on the surgical dissection of the deep structures of the male perineum, and the lateral operation of lithotomy, elucidated by four drawings.

The commentary on plates fifty-four, fifty-five, and fifty-six refers to the surgical dissection of the male bladder and urethra, and comprises an account of the lateral and bilateral operations of lithotomy. To this chapter are attached eight lithographs. In this comparative view of the two operations for the removal of stone from the bladder, the author exhibits the incisions made in each, and contrasts them with reference to their respective merits, as avoiding the dangers to which each is exposed, and as offering facilities for the extraction of the calculus. In addition to this, some excellent views are given of the course of the urethra, and the obstacles to the introduction of the catheter.

Plates fifty-seven and fifty-eight and the associated remarks are explanatory of the congenital and pathological deformities of the prepuce and urethra—as well as of stricture and mechanical obstructions of this canal. For the illustration of these, twenty-six views of the parts are presented. These drawings are of value, inasmuch as they represent, as we gather from the text, *bonâ fide* cases of congenital and accidental derangement.

In plates fifty-nine and sixty, comprising twenty-five separate drawings, we have exposed the various forms and positions of strictures, and other obstructions of the urethra, false passages, and enlargements and deformities of the prostate. The subject of deformities of the prostate, and the consequent distortions and obstructions of the prostatic portion of the urethra, is contained in the concluding chapter, and is further illustrated by twenty drawings in plates sixty-one and sixty-two. Thus, it will be perceived, we are in the last six plates furnished with a valuable series of prints (seventy-one in number), exhibiting the ordinary and the unusual causes which interfere with healthy urination, and many of the bad effects resulting from careless efforts to relieve the difficulty.

In our notice of one of the preceding parts of this valuable publication, we took occasion to allude to the philosophical analogies which Mr. MacLise pointed out as traceable between organs and parts apparently dissimilar. The author is evidently fond of studying anatomy as a science embodying profound laws of harmony and beauty, and of endeavouring to unravel these. But, however praiseworthy and deserving of encouragement this may be, and however much it elevates the study of anatomy above the mere grasping after isolated facts, there is certainly the same danger of drawing false analogies and inferences here, as in every other similar investigation; in mineralogy, geology, or botany, for example. And in the last chapter, we think that Mr. MacLise has stumbled upon this very difficulty. He says, p. 133, "The prostate is peculiar to the male body; the uterus to the female. With the exception of these two organs, there is not another which appears in the one sex, but has its analogue in the other; and thus these two organs, the prostate and the uterus, appear, by exclusion of the rest, to approach the test of comparison by which their analogy becomes as fully manifested as that between the two quantities  $a-b$ , and  $a+b$ : the only difference which exists depends upon the subtraction or addition of the quantity,  $b$ . The difference between a prostate and a uterus is simply one of quantity, such as we see existing between the male and female breast. The prostate is to the uterus absolutely what a rudimentary organ is to its fully developed analogue," &c. He also says, "This body is not a gland any more than is the uterus;" "the prostate has no function proper to itself *per se*;" "in texture the prostate is similar to an unimpregnated uterus. In form, it is, like the uterus, symmetrical. In position, it corresponds to the uterus. The prostate has no ducts proper to itself. Those ducts which are said to belong to it (prostatic ducts) are merely mucous cells, similar to those in other parts of the urethral lining membrane," &c. We have always regarded this hypothesis as a sort of *transcendentalized transcendentalism*. The optics and the sensorium which can see as much resemblance between a prostate gland and a uterus as between a male and female breast, or a vertebra of the lumbar region and one of the bones of the coccyx, must be as far removed in perceptive powers above those of Swedenborg and his most favoured disciples, as heaven is high above the earth. Mr. MacLise's assertion that the prostate is not a gland, and that it

has no ducts, may be met by reference to the dissections of this body by Hænel, Huschke, Müller, Quecket, Jones, and others, who describe its follicular structure, and the little ducts which issue from these follicles, lined by a continuous epithelial membrane, and containing the same fluid. Its function is not positively known, it is true; but the suggestion of Mr. Adams (Vid. *Cyclop. Anat. and Physiol.*, part 31, p. 154), that the acidity of its secreted fluid may serve to prevent the tendency to inspissation of the alkaline spermatic secretion, and thus to favour the ejection of the latter, may be the clue to its real purpose in the economy. And if an analogue to the uterus be wanting to render the male complete in Mr. MacLise's view, surely the "*utriculus prostaticus*" offers a much more striking analogy to that organ, in its shape, and in its position between the two ejaculatory ducts, which, though they do not generally open into it, do occasionally communicate with its interior, as is said by some anatomists. Huschke, who has paid considerable attention to this curious anatomical question, draws the following inferences from his observations: 1st. That the "*utriculus*" is a male uterus. 2d. That it is originally a receptacle of spermatic fluid. 3d. That its development bears an inverse proportion to that of the true seminal vesicles and the prostate gland, perhaps even in man. 4th. That it is at a late period a mere rudiment of foetal life, divested of all importance. (Huschke, *Encyclopédie Anatomique*, vol. v. p. 382.)

But this is a mere wandering of the imagination on the part of Mr. MacLise, and does not in the least detract from the merits of his most valuable contribution to surgical science. We will not quarrel with him on this account; "*aliquando dormitat bonus Homerus.*" F. W. S.

ART. XIII.—*Urinary Deposits; their Diagnosis, Pathology, and Therapeutical Indications.* By GOLDING BIRD, A. M., M. D., F. R. S., F. L. S. Assistant Physician, and Lecturer on Materia Medica and Therapeutics, at Guy's Hospital, &c. &c. &c. Second American, from the third and enlarged London edition. Philadelphia: Blanchard and Lea, 1851.

THIS work of Dr. Bird has, through its former editions, acquired a celebrity which places it among the standard publications of the day; and would require but the announcement only of a new edition, were it not that it has received, at the author's hands, so complete a revision as to render it quite as much a new work as many which are issued from the press under this title. After the first thirty pages, it will be found, on comparing this with the former editions, that the changes and additions are so frequent as to preclude any design of their enumeration. Every two, or more pages, there appear new wood-cuts, additional observations, and the incorporation of later information of an authentic character, and re-modification of former statements in correspondence with the present condition of our knowledge in this department; presenting, in a succinct form, a complete view of the state of investigation in this speciality of medical science. The existence in the urine of creatine, creatinine, and other substances found in flesh; of fatty matters; of casein during lactation, &c.; variation in the appearances of this secretion in colour from excess of purpurine, in consistence from urate of ammonia, in quantity sufficient to gelatinize on cooling; alteration in composition from the nature of ingesta, and period of taking the food, and from functional and organic disease in the different organs, together with the pathological indications to be derived from this source, are some of the points which have engaged the author's attention. Therapeutic indications in the varied conditions of the urine are also noticed, and the effects of remedies: as colchicum on the secretion of uric acid, and the oxalic diathesis; borax, phosphate of soda and ammonia, &c., in retaining uric acid in solution, &c. Although this notice comprises, in a very general manner, but a portion of the new matter introduced, it suffices to present an idea of the extent of revision to which the work has been subjected. The American edition has been issued, in form and size to correspond with the allied works proceeding from the same publishers, and is well suited to the convenience of the student. R. B.

ART. XIV.—*Principles of Physiology, General and Comparative.* By WILLIAM B. CARPENTER, M.D., F.R.S., F.G.S., etc. etc. Third edition. With three hundred and twenty-one wood engravings. Philadelphia: Blanchard and Lea, 1851. 8vo. pp. 1098.

THE necessity of an acquaintance with the physiology of the human organism as a guide in the investigation of its various pathological conditions is now universally admitted. Every means, therefore, calculated to facilitate the study of the actions of living organized matter, from the simplest to the most complicated forms in which it presents itself, with the forces by which these several actions are produced, governed, and modified, and the reciprocal relationship they hold to each other, becomes of importance. One of the most efficient aids to this study is unquestionably comparative physiology. Commencing with an investigation of the vital forces and functions exhibited in the lowest order of living beings, and, as we ascend upwards in the scale, tracing the modifications in the structure and vital actions, as the organism becomes more and more complex, and new forces are brought into operation, and new functions are developed, we are enabled, in some measure, to study the physiology of the several vital forces and functions separately, and are thus better prepared to understand the operation of these forces, and the true character of these functions in the complicated organism of the higher class of animals and man.

The attempt to analyze the different functions of living organized matter, and the forces by which they are maintained and governed, by venesection and other experiments performed on living animals, cannot lead in every instance to satisfactory conclusions, from our inability to determine whether the phenomena produced are not due more to the violence inflicted by the experiment than to the isolation of parts intended to be affected by it. Although the facts derived from comparative anatomy may not be sufficient to do away entirely with the necessity for experimenting upon living animals, still so far as these facts go they furnish conclusions of a more positive and satisfactory character. It is from these facts alone that we can expect to derive any insight into the supposed correlation of the several vital forces, and of these with the purely physical forces operating in the inorganic world; and as the establishment of such a correlation would lead us to a clearer conception of vitality than we have yet attained, the study of comparative physiology becomes, even in this particular, one of primary importance. In whatever point of view, in fact, the subject is viewed, whether as an interesting branch merely of natural philosophy, or as a guide to the more intricate questions connected with the physiology of man, the study of comparative physiology becomes a desirable, if it be not an essential branch of medical education.

The work of Dr. Carpenter obviates every objection that might be advanced to entering upon this study from the want of a clear and comprehensive treatise embracing a correct view of the existing state of knowledge in reference as well to general as to comparative physiology. Availing himself of the best and most recent information he could procure upon each department of the subject, and devoting considerable time and attention to the verification of the statements of other observers, especially on points under dispute, he has orderly and methodically digested and arranged the materials thus obtained, as well as a large amount drawn from his own original inquiries, so as to place the knowledge of many within the reach of any one who may feel desirous of acquiring it with no further trouble than the careful perusal of a few hundred pages, the production of which has cost the author much and prolonged labour.

Dr. Carpenter has succeeded so well in embodying in the present treatise the general aspect of the science of which he treats, and in teaching the leading facts embraced in it, in a style so plain and withal so explicit, that many who commence the volume without any design of studying it thoroughly, will be allured onward until they shall have mastered the whole of its interesting contents.

Though professedly the third edition of "The Principles of General and Comparative Physiology," the treatise before us is to be viewed in some measure

as a new work. Out of the 1080 pages of text, not above 150, or less than one-seventh, belong to the previous edition; this fact evinces the desire of the author to spare no pains, in order to render the volume a faithful exposition of the present state of physiological science.

To present an analysis of so voluminous a work as the present, in which so many subjects of deep interest are treated of, and so many intricate questions, connected with the biotic forces and actions, are discussed, would be impracticable; and to enter into a criticism of the several doctrines inculcated would necessarily extend our notice to an unreasonable extent. Notwithstanding, as already remarked, the author has, in the selection of his materials, endeavoured to avail himself of the best and most recent information he could procure, it is scarcely to be expected, as he himself remarks, that he should be equally well informed upon every point, and those who have followed particular departments into detail, will doubtless find scope for criticism in what they may regard as deficiencies or even errors. Dr. Carpenter desires that his work may be estimated by its general merits; and rather by what it *does* than by what it *does not* contain. It would have been, he adds, far easier to expand it by *mere compilation* to twice its present dimensions, than it has been found to compress the collected materials within the space they even now occupy.

It is to be regretted that Dr. Carpenter should be allowed to anticipate not the slightest pecuniary recompense for the time and labour he has bestowed upon the production of the valuable treatise before us, but, on the contrary, a certain loss, involved in the relinquishment of other literary engagements of a remunerative character. We are assured that the sale of the entire edition will not do more than remunerate his liberal publisher for the very large outlay which he has incurred in bringing out the work, and more especially for the beautiful series of illustrations with which it is embellished. We had hoped that, inasmuch as the work of Dr. Carpenter is the only systematic treatise, embracing the principles of general and comparative physiology, within the reach of the English student, this, in connection with its intrinsic value, would insure the sale of a sufficient number of copies and at a price to remunerate both publisher and author.

D. F. C.

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ART. XV.—*Transactions of the Medical Society of the State of Pennsylvania at its Annual Session, held in the city of Philadelphia, May, 1851. Vol. I. Published by the Society. 8vo. pp. 128.*

In the present volume of their Transactions, the State Medical Society of Pennsylvania give an earnest of their zealous co-operation with the societies of the other States in perfecting the organization of the medical profession throughout the Union, as well for the faithful administration of a correct ethical discipline among its members, as for the enlargement of the common stock of professional knowledge, by a careful study of the endemic diseases of each section of the country, in connection with its medical topography.

The session of 1851 was unquestionably a most interesting one, not so much from the importance of the business transacted, as from a good example being given in the reports received from a portion of the counties, which, it is believed, will be followed up at each succeeding session, until the materials shall be accumulated for a complete history of the medical topography and prevailing diseases of the State.

The reports embraced in the volume before us, though all valuable, differ considerably in their extent, and in the amount of positive observations upon which they are founded. Some can be considered only as outlines to be filled up, hereafter, by the results of further and more extended investigation; others, however, especially that on the topography and diseases of Berks County, are drawn up with great ability, and in their manner and matter may serve as models for future reports from the other counties.

The character of all of the reports before us is sufficiently encouraging, and, under all circumstances, equal to what we had a right to anticipate. It is only recently that any attempt has been made to organize the profession throughout Pennsylvania, and by concentrating the labours of the numerous talented physicians scattered over the interior of the State, in rural and often sparsely populated districts, to render available, for the instruction of all, the facts and deductions collected by each within his own field of observation. Many, immersed in the engrossing duties of a wide range of country practice, have neither the time nor inclination to draw up a formal report, but are able, nevertheless, to contribute valuable materials; and there is no section of the State in which a committee of medical men cannot be found fully capable, and no doubt willing, to arrange these materials in such a form for presentation to the State Society as shall do credit to it as well as to themselves.

Among the more important subjects that occupied the attention of the Society at the session, the record of the transactions of which is before us, are a registration of births, marriages, and deaths, throughout the State; the expediency of establishing a pathological cabinet; the gratuitous vaccination of the poor in every county of the State; and the protective powers of vaccination.

The vital statistics to be derived from a careful and continuous registration of the births, marriages, and deaths, which occur in the midst of any community, are essential not merely to settle questions relating to population, but to determine, by positive data, the proportion of the natural increase and mortality in different localities, and among the different classes of the community, with the view of ascertaining their comparative salubrity, the causes of any discrepancy in this respect, which may be found to exist between them, and the means by which such discrepancy may be obviated. By vital statistics, alone, can be determined the value of life in the different sections of a country, and in the different ages, occupations, and modes of living of its population; and they can alone lead us to the discovery of the measures necessary to equalize and augment the value of life in all. These are among the leading benefits to be anticipated from an accurate system of registration, and we are pleased to find the medical profession in Pennsylvania alive to the importance of this measure, and zealously engaged in obtaining the passage of a law by the Legislature of the State to carry it into effect.

Although there are some defects in the bill relative to registration passed at the last session of the Pennsylvania Legislature, and printed as an appendix to the present volume, still it is to be regretted that the Governor should not have seen proper to give it his approval. A registration being once established, there would be little difficulty in obtaining the amendments necessary to secure a more simple and efficient system.

In withholding his name from the bill alluded to, the Governor merely exercises a power secured to him by the constitution; we have no right, therefore, to complain, but it is to be hoped that the reasons he shall furnish to the legislature, at its ensuing session, will be of a character fully sufficient to warrant the jeopardizing of so important a measure.

The report of the committee on a pathological cabinet deserves the serious consideration of all the constituents of the State Society. Valuable specimens of morbid anatomy may be collected by every physician in general practice; but this is seldom done, few physicians out of our large cities having the leisure properly to prepare them for examination and preservation, or the conveniences for keeping them for future reference. A few isolated specimens, also, are but of little value to the pathological student, compared to an extensive and well-arranged cabinet. The liberal proposition made by the College of Physicians, if acted upon by the physicians of Pennsylvania, would, in a few years, place within their reach a cabinet in which all the leading forms of morbid structure could be studied with profit.

The gratuitous vaccination of the poor throughout the commonwealth is a measure in which every citizen is deeply interested. Even if the protection of the indigent classes from the suffering, the mortality, or the deformity, incident to small-pox, and the saving of the loss entailed upon the community by the death or decrepitude of vast numbers of its labouring population, and the expense

incurred for their support when sick or disabled, would seem to be sufficient considerations to insure the measure being carried into effect; but when we consider that, with a large portion of the population liable, upon the occurrence of an epidemic of small-pox or its accidental introduction by an infected person or clothing, to be attacked with that disease in its worst form, even many of those who, under ordinary circumstances, are fully protected by vaccination, are in danger of suffering, to a certain extent, from exposure to an air thus saturated with the poisonous miasm given off from the bodies of the sick, while their offspring, unless they could be conveniently and effectually vaccinated at the moment of birth, are liable to fall victims to the prevailing disease.

We are glad that the State Society has taken this subject in hand, and can entertain no fear that their appeal to the legislature in reference to it will be ineffectual.

The novel and startling facts and propositions, announced by Dr. Gregory of London, in relation to vaccine, small-pox, revaccination, and inoculation, and referred to in the report of Dr. Jackson made to this session of the State Society, are well deserving of a close investigation. If it be true that inoculation in persons over fifteen years of age, who had been previously vaccinated, produces a new form of papular disease, which is not contagious, is unattended with danger, and gives protection against small-pox for life, we have a discovery equal, if not superior, in importance to that of Jenner. If the correctness of this statement shall be established by a careful series of experiments, we shall have then a means of protection against small-pox more uniformly certain than vaccination, and disarmed of all the danger attendant upon variolous inoculation.

The State Society has very properly appointed a committee to investigate the accuracy of these conclusions of Dr. Gregory, in which he is said to be sustained by M. Cazenave, the celebrated dermatologist of Paris. It is to be hoped that the committee will not neglect the task confided to them; the means for its accomplishment are within their reach, and the medical profession throughout the State will look with anxious expectation for their report. D. F. C.

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ART. XVI.—*History of Medical Education and Institutions in the United States, from the first Settlement of the British Colonies to the year 1850; with a chapter on the Present Condition and Wants of the Profession, and the Means necessary for supplying these Wants, and elevating the Character, and extending the Usefulness of the Whole Profession.* By N. S. DAVIS, M. D., Professor of Principles and Practice of Medicine in Rush Medical College, etc. etc. Chicago, 1851: 12mo. pp. 228.

In undertaking the office of historian of medical education and medical institutions in the United States, Dr. Davis has, evidently, been prompted by the best of motives. Unfortunately, however, he has mistaken his vocation. We admire the love he has evinced for his profession, and give him credit for the efforts he has made to elevate its character and extend its usefulness, by directing due attention to the moral character and proper education of those who would enrol themselves among its members. Of his honesty of purpose, no one has a right to doubt; and of his untiring zeal in the cause of professional reform we have all been witnesses. Still we must withhold from him our meed of praise when he claims it as the delineator of the domestic history of the medical profession; the means it has provided in this country for the instruction of its novitiates; and the institutions it has there organized, where its mission of good may be displayed, and its members made familiar with disease and the application of the means for its prevention and its cure.

There can be no doubt that a careful review of the condition of the medical profession and of medical education in these United States, from their first settlement to the present period, would be both interesting and instructive. In

such a review, attention should be paid to the character and professional standing of the physicians with which the country was supplied during the several periods of its colonial history, as well as subsequently to its organization as an independent nation; and an inquiry should be instituted into the influence which, previously to the establishment of regular medical schools, and for some time after, the leading physicians exercised, as private instructors, upon the character and condition of our profession on this side of the Atlantic. Pains should also be taken to trace the opportunities that were successively afforded for medical education; these at first, it is true, will be found to have been but few, casual, and imperfect, but augmenting in number, permanence, and importance, as the population increased, and medical services became more in demand, and were better compensated. By a candid examination of the state of medical education in this country, compared with the condition and wants of the people, we shall not find so much cause of complaint in regard to the actual neglect of professional instruction, and the ignorance and deficiency of skill in the medical men, during the period of our colonial subjection or in the early days of our independent existence. The fault has not been that the means for medical instruction adapted to the existing condition of the people, and in accordance with the former restricted character of medical science, were not afforded in this country at a sufficiently early period; but, on the one hand, that the means for professional education have not kept pace with the progress of our science and the rapid development that has been given to every department of human knowledge calculated to lead us to a knowledge of the etiology, the pathology, the prevention, and the cure of disease; and, on the other, that due care has not been taken to demand from all who would assume the duties and responsibilities of a practitioner of medicine, adequate moral and educational qualifications.

In the work before us, Dr. Davis professes to have embodied "all the facts in regard to the educational history of the medical profession in this country; and by a careful tracing of present evils and defects to their origin," to have furnished that information without which "no member of the profession can be prepared to act wisely his part in the great progressive movements of the age." He has unquestionably brought together much useful information in reference to the history of our profession, in this country, during former years, not certainly all that he might have collected by a little more research; nor has he always presented what he has collected with all the fullness and precision which are desirable. Nor has he always made the best use of his materials, by so arranging them as to present a broad and comprehensive view of the condition of the medical profession of our country, at different periods from its earliest settlement to the present.

Many of the important contributions to medical knowledge and literature, for which we are indebted to our older physicians, are correctly indicated in the present work; others, however, of equal value are left unnoticed. Dr. Davis evinces no great familiarity with the early history of American medical literature, having recorded as an entire blank a period during which many works of distinguished merit were produced, the greater portion of which are still received as authorities in reference to the particular subjects of which they treat.

In the closing chapter, are presented many important truths connected with the present condition and wants of the profession: truths which strongly press themselves upon our attention. We cannot shut our eyes to the fact that for a series of years the medical profession throughout our country has been rapidly deteriorating; that the qualifications of a majority of those admitted into its ranks are manifestly deficient; and that, in consequence, it has lost that high rank in public estimation which it is essential it should maintain to enable its members to fulfil successfully their important and responsible duties. It is unquestionably true that physicians have entailed much of the evil, under which they labour, upon themselves. And it will continue to be felt so long as private teachers will receive into their office, as medical pupils, individuals deficient in sufficient mental capacity, preliminary education, and moral fitness



to acquire a proper knowledge of the healing art, or to practice it with honor to themselves and benefit to their patients.

While there exists, in almost every State, a facility for the rapid multiplication of schools, with irresponsible faculties; and while the office of medical teacher is permitted to be assumed merely as a source of income by those who are unwilling to abide the slow acquisition of professional employment and its legitimate emoluments, it is impossible to expect that medical teaching will not be prostituted for the sake of gain, and that imperfectly educated and incompetent persons will not be graduated as physicians, to crowd the profession, lower it in the esteem of the public, and discourage from entering into its ranks such as can alone confer credit upon it by a conscientious and efficient discharge of its duties. What is the best remedy for these evils, we are not prepared to decide. Perhaps the one proposed by Dr. Davis might succeed, could it be carried into full effect. But until the members of the profession generally shall be brought to see that their true interests will be best promoted by excluding from among them all such as are not properly qualified to assume the duties and responsibilities of physicians; until they shall become united among themselves, and prepared to decide for themselves, without reference to the pecuniary interests or selfish rivalry of medical schools, what shall be the qualifications of those whom they are alone willing to recognize as regular practitioners of medicine, we fear the evil will rather increase than diminish. Even though a law were passed by every State separating the right of teaching from that of licensing to practice, and conferring the latter upon an independent board of examiners, the evil could not be remedied, but incompetent persons would still be admitted to disgrace the medical profession.

Fifteen years ago an excellent law was passed by the legislature of this State—the same law which Dr. Davis erroneously states was rejected by that body—which, had it been fully carried out by those who were its original projectors, might have been made the basis of an important reform in medical teaching; by giving to the student all the advantages to be derived from the instructions of the best teachers in the different branches of medical science our country could supply; and of an essential reform in the mode of conferring the diploma, which should be the passport to practice, by making it the positive testimonial of their qualifications, as determined by an independent and disinterested board of examiners, responsible for their acts to the great body of the profession throughout Pennsylvania. But, unfortunately, the temptations of ease, power, and emolument, held forth by the professorial chairs of our medical schools, caused the zeal of most of the early friends of this law to cool; and it has, in consequence, remained, until now, a dead letter on the statute-book of the State.

D. F. C.

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ART. XVII.—*The Laws of Health, in relation to Mind and Body: A Series of Letters from an Old Practitioner to a Parent.* By LIONEL JOHN BEALE, M. R. C. S. Philadelphia: Blanchard and Lea. 12mo. pp. 295.

In these letters will be found a very good summary of the laws of health; the importance of a knowledge of which to every individual who desires to enjoy to the uttermost, and to the latest possible period of human existence, the exercise of his physical and mental powers—to every one who would avoid the pangs of disease and premature decay, and preserve unimpaired the inestimable blessing of a sound mind in a healthy body—is enforced and illustrated in a manner well calculated to interest and instruct the popular reader.

It is unquestionably true, that "such books as the present cannot be too numerous, while the laws of health are so grievously disregarded," not only by parents, who, in the proper or improper training of their offspring "from birth, through childhood, and to the eve of man's estate," have it in their power to bestow upon them a life of sickness and imbecility, or one of health, with phy-

sical, and moral, and intellectual vigour, but by nearly all persons in reference to themselves. The mass of mankind act as though all that relates to their organic well-being were unworthy their consideration. Many, indeed, would seem to imagine that a good constitution is an accidental inheritance, that health and disease are the mere offspring of chance, and that man can no more secure the one or avoid the latter, by attention to diet and regimen, to action and rest, to the material and amount of clothing, to the condition of the air he breathes and to the due exercise of his moral and intellectual powers, than he can, "by taking thought, add one cubit to his stature."

"That the body and the mind may be so trained as to resist disease altogether would be too bold an assertion, but it is certainly true of a vast number of the diseases which afflict our race." The daily duties of the medical practitioner bring to his notice many lamentable cases, where a small degree of knowledge of the laws of health would have most certainly prevented serious evils. Even those disorders which come upon the community suddenly from some unknown change in the constitution of the atmosphere that we can neither detect nor prevent, are less liable to attack, or, when they do attack, are ordinarily less severe in those who are guided by the laws of health.

In every point of view a careful study of these laws is important to all. It is upon a correct knowledge of them alone that must be based all sanitary reforms of a public character, whether in the construction, heating, and ventilation of buildings, the drainage and cleansing of cities, the discipline of schools, the regulation of labour in factories, and in the location and management of cemeteries for the dead.

All the bearings of the laws of health may not perhaps be so fully pointed out in the present work, or so fully elucidated, that it shall supersede the necessity of a more voluminous and complete treatise on the subject; still it is one well calculated to extend a knowledge of those laws—a knowledge in which every one is interested, inasmuch as upon a "due observance of them the value of life depends."

D. F. C.

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ART. XVIII.—*The Outlines of General Pathology.* By M. L. LINTON, M. D., Professor of the Theory and Practice of Medicine in the Medical Department of the St. Louis University. St. Louis, 1851: 8vo. pp. 205.

We have seldom met with a medical work of so little pretension as this of Dr. Linton possessing the same amount of solid merit, and capable of interesting and instructing the reader to an equal extent. So plain, so simple, and so consistent are the general principles of pathology it inculcates; so seemingly in accordance are they with what we know of the physiology of man, and with the leading facts deduced from clinical observation and pathological anatomy; that they cannot fail to receive a favourable reception on the part of the medical profession. Even though upon more close investigation all the positions assumed by the author should not be found tenable, and in the complex organism of man it should be shown that other elements of disease may be engendered than those he has enumerated, still, in the present condition of medical knowledge, the outlines of general pathology of Dr. Linton will bear a very favourable comparison with any of the systems which are now credited as authorities. They are more simple and consistent than most of these, and are certainly, upon the whole, more truthful than some even of the more popular. We speak of these outlines, of course, only so far as they profess to teach the leading doctrines of disease, explanatory of its nature, elements, causes, and effects. As a system of general pathology embracing all the facts bearing upon the subject that have been accumulated and verified by the observations of the entire profession, to which character, however, they make no pretension, they unquestionably fall very short of numerous well-known treatises. It is as a faithful exponent of the general laws by which these facts are to be interpreted, alone, that the outlines of Dr. Linton can claim any merit.

There is no doubt that, upon a close criticism of each of the positions assumed by the author, we should find cause to question the entire accuracy of some few of them. We had in fact marked one or two for comment, but when we had gone through the entire work we were so much gratified with it, as a whole, that we felt disinclined to present objections to any portion of it, especially to such as involved no point upon which a difference of opinion might not exist without affecting the correctness of the general doctrines inculcated.

We strongly recommend the work to the attention of our readers, no one of whom, we are convinced, will regret the time devoted to its attentive perusal.

D. F. C.

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ART. XIX.—*Lectures on Eruptive Fevers, as now in the Course of Delivery at St. Thomas's Hospital, in London.* By GEORGE GREGORY, M. D., Fellow of the Royal College of Physicians of London; Physician to the Small-pox and Vaccination Hospital at Highbury; Corresponding Member of the National Institute of Washington, etc. First American edition, with numerous additions and amendments by the author, comprising his latest views. With Notes and an Appendix, embodying the most recent opinions on Exanthematic Pathology; and also Statistical Tables and Coloured Plates. By H. D. BULKLEY, M. D., Physician to the New York Hospital, Fellow of the New York College of Physicians and Surgeons, etc. etc. New York, 1851: S. S. and W. Wood. 8vo. pp. 376.

THESE lectures present a very full and able account of the pathology and therapeutical management of a class of diseases which, from the frequency of their occurrence, and the fearful mortality attendant upon several of them, particularly interest every physician. The high professional standing and extensive experience of Dr. Gregory give to his opinions a degree of authority which, in connection with the character of the subjects discussed, renders the volume before us a highly important addition to our medical literature. It is calculated certainly to exert a powerful influence upon medical opinion and practice, in reference to the febrile exanthemata; and from the general accuracy of the views advanced by the author, we are happy to say that this influence will be a favourable one. Although we cannot agree with him in his opinions as to the uncertain and temporary character of the protection afforded by vaccination against the occurrence of small-pox, still, with the exception of this and a few other points of minor importance, his pathological and therapeutical teachings are, in the main, sound and judicious, and correspond with the general observations and experience of American practitioners.

Dr. Gregory divides the acute febrile exanthema into those "bringing life into hazard"—small-pox, measles, scarlet fever, and erysipelas; and those "not bringing life into hazard—the lesser exanthema." These he divides into two sections: "1. Vesicular affections, of which there are four: Vaccina, varicella, herpes, and miliaria. 2. The simple efflorescences, not leading to fluid effusion, of which there are also four—namely, lichen, urticaria, roseola, and erythema." These twelve forms of eruptive fever constitute the subject of the present series of lectures.

After noticing the large proportion—amounting in England and Wales to one-ninth—of the entire annual mortality produced by small-pox, measles, scarlatina, and hooping-cough, Dr. G. remarks:—

"If the exanthemata are considered independent of the hooping-cough, considerable fluctuations will be perceived, the mortality by them falling sometimes as low as six per cent., at times rising to near thirteen; but a very important principle comes into play here, which serves to equalize the amount of epidemic mortality. This curious doctrine has long been surmised, but was never proved until the statistical inquiries of recent times showed its correctness. We may, for want of a better name, call it the law of vicarious mortality, by which is understood, that whenever one epidemic diminishes, another in-

creases, so that the sum total of epidemic mortality remains on an average of years nearly the same."

This doctrine of vicarious mortality, which would appear to be fully borne out by the statistics adduced by Dr. G., as well as by those added by the American editor, and by other and more extended series that we have examined, is one which demands a close investigation, in order that its accuracy may be more fully tested, and its true bearing upon many interesting questions in vital statistics clearly established.

Dr. G. doubts the commonly received opinion, that the specific fever of an exanthematous poison may occur without an eruption; he denominates it a "very questionable pathology, which he cannot undertake to advocate." That, during variolous, scarlatinous, and morbillous epidemics, many persons experience an attack of fever, and most of the general symptoms of the prevailing disease, without the occurrence of any eruption, is unquestionably true; but whether these persons can with propriety be said to have passed through small-pox, scarlatina, or measles, whichever may be the reigning malady—whether they are as fully protected from a future attack as those in whom the eruption occurs—is to us, however, very problematical.

Dr. G.'s opinion in regard to the pathological relationship of the different exanthemata is thus expressed: "In general, the distinctive characters of exanthematous eruptions are strongly marked, but difficulties in diagnosis do occur. Small-pox is sometimes mistaken for chicken-pox. Measles is not always readily distinguished from lichen.

"When the exanthemata first invaded the world, their identity was universally believed. Rhazes and Avicenna taught that small-pox and measles were the same disease. Even so late as 1640 this doctrine prevailed all over Europe. Measles and scarlatina continued to be confounded until about one hundred years ago; nor has the bias in favour of exanthematic identity which our ancestors displayed, altogether subsided. Dr. Thompson of Edinburgh laboured to prove that chicken-pox is identical with small-pox. Dr. Baron, Mr. Ceely, and others, who would be justly offended by the imputation of confounding scarlatina and measles, or measles with small-pox, contend, nevertheless, strenuously for the identity of small-pox and cow-pox.

"That the disorders termed exanthemata bear a certain pathological relation to each other cannot be denied; but this principle is not more applicable to small-pox and cow-pox than it is to small-pox and measles, to small-pox and chicken-pox, to measles and scarlet fever. The epoch of the diffusion of small-pox and measles gives a certain countenance to such a doctrine. The relationship may possibly consist in some modification of the elements which compose the morbid miasm, and may be analogous to that which subsists between the nitrous oxide, the nitrous acid, and the nitric acid. Such a relationship, however, if admitted, is very different from the absolute identity for which Dr. Thompson and Dr. Baron contend."

All the facts connected with the history of the various epidemics of the more important of the febrile exanthemata would seem to point out a very close relationship between them. Whether they are all mere modifications of one or two primary diseases, or whether their distinctive characteristics result from some change that takes place in the elements composing one common morbid miasm, is a question of no little interest, but at the same time, one that will probably ever remain unresolved. Even, however, admitting this close relationship, we are not prepared to admit their absolute identity. The diagnosis of scarlet fever, measles, and erysipelas, and of small-pox, vaccinia, and varicella is too decided, and their successive propagation with all their distinctive features too clearly established, to suppose them to be mere varieties of one and the same disease.

The third, fourth, and fifth lectures are devoted to the early history, phenomena, statistics, and management of small-pox. They present under each of these heads every important particular connected with the history of the disease from its first recorded appearance, with its symptomatology, pathology, and therapeutics.

Dr. G. evidently considers inoculation to be a more certain protective against

the mortality of small-pox than vaccination; we should almost infer, from his arguments in defence of it, that he at the same time believes it to be nearly, if not equally, as safe in every point of view. We present his views on this subject, in his own words:—

“You will naturally wish to know what were the practical results of inoculation. I will tell you in a few words. Its influence in lessening the mortality of small-pox was something quite extraordinary, and scarcely credible. With ordinary precautions in the choice and preparation of subjects, not more than one in *five hundred* cases will terminate unfavourably. The ill success which attended the early inoculations, between the years 1722 and 1730, arose entirely from bad management, from the most culpable negligence in the choice of subjects, and an utter ignorance of all the principles by which the practice of inoculation should be governed. Had not the discovery of Jenner interfered to interrupt its extension and improvement, inoculation would have continued to this day, increasing daily in popularity. It cannot be doubted that improvements in medical science generally would have shed additional lustre on this practice.

“Since the introduction of vaccination, it has been the fashion to decry inoculation, and to impute to it mischief of which it was not guilty. The great objection made to inoculation, and that which recently induced Parliament to abolish it altogether under heavy penalties, was, that it disseminated the virus, and multiplied the foci of contagion. Dr. Watkinson and Dr. Schivenke, in 1777, and more recently Dr. Adams, broke the force of this argument, by pointing out how important a part epidemic influence plays in the diffusion of variola. Had they lived in our times, how strongly would they have fortified their arguments? We saw, in 1838, an epidemic small-pox raging in London, where inoculation had long been discontinued. The admissions into the Small-pox Hospital in that year exceeded those of 1781 and of 1796. Inoculation was abolished throughout England and Wales in 1840, and the act has been most rigidly enforced; yet, during the last two years, small-pox has visited every county of England.

“Sir Gilbert Blane has attempted to prove by statistics the evils of inoculation. He has shown that the proportion which the mortality by small-pox, in London, bore to the general mortality, increased, during the last century, from 78 to 94 per thousand; but many circumstances must receive attention before we are justified in drawing conclusions from this fact. The population increased prodigiously in the interval, more indeed than would suffice to explain the increased mortality by small-pox. But further, the general mortality diminished. Consequently, though the actual mortality by small-pox had remained stationary and uninfluenced by population, its ratio to the total mortality would appear to augment. Thirdly, Dr. Adams has shown that a correspondent increase took place in scarlet fever and hooping-cough, which are not communicable by inoculation. Lastly, a different mode of calculation would exhibit a very different result. The sophism consists in arranging your figures so as to include or exclude years of epidemic prevalence. If, for instance, we divide the last ninety years of the eighteenth century into three periods, we shall find that the recorded deaths by small-pox were as follows: 1711 to 1740 (when there was no inoculation), 65,383; 1741 to 1770 (when inoculation was coming into general use), 63,308; 1771 to 1800 (when inoculation was almost universal), the deaths were only 57,208; so that by this showing, inoculation diminished the mortality by 8115 lives.

“Statistics are very useful, and deservedly carry great weight with them; but they may be enlisted, with a little management, on both sides of an argument.

“One subject only remains for our consideration, and that is, the question whether any circumstances would still warrant us in recommending inoculation on scientific principles? Concurring most cordially in opinion that the practice of inoculation by *unqualified* persons ought to have been put down (not in 1840, but forty years before that) by stringent legislative enactments, I still remain of opinion that, under several circumstances, it is the duty of a medical man to recommend inoculation. These circumstances do not, indeed, often occur; but the legislature would hardly wish to control and fetter, even in a

single case, the deliberate judgment of a physician, acting for the benefit of his patient. I will name to you four of these cases: 1. When a person has been found, from peculiarity of habit, unsusceptible of vaccination. 2. When new sources of vaccine lymph are introduced, and it becomes of importance to ascertain that the new virus is efficient. 3. When young persons (between the ages of ten and twenty), vaccinated in early life, are proceeding as cadets to India. 4. When small-pox unexpectedly breaks out in a country district, at a time when (even with the facilities of a penny post) vaccine virus is not to be obtained. Other cases equally strong might be put."

This special pleading in favour of the safety of inoculation will be very readily overturned by a careful analysis of the statistics exhibiting the comparative mortality produced by small-pox prior to the introduction of inoculation, during the period of its general practice, and subsequent to the introduction of vaccination, as collected by different writers of Europe and America. In the Appendix to the present edition, Dr. Bulkley has presented sufficient evidence to show the general inaccuracy of the author's conclusions. There is great truth and good sense in the following remarks of the editor:—

"However great may be our indebtedness to inoculation for the amount of life saved by it to mankind, and we freely acknowledge it to have been great, we cannot but feel that the practice can never be relieved from the objection of multiplying foci of contagion; and while we concede that its continued employment would doubtless have led to great improvement in the mode of conducting it, and to still more decided benefits from it, with probably diminished risk of communicating it beyond the individual operated upon, we cannot be too grateful for the substitution of another protective power, apparently equally efficacious in its results, and almost entirely free from the charge of the least danger, in itself, either to the individual or to those about him. At the same time, we fully agree with our author, that there are circumstances which would warrant its adoption in special cases, and with proper restrictions, and that those mentioned by him come under this head; and we could even add to the list. It is not denied that inoculation may be perfectly safe, so far as the individual on whom it is performed is concerned, and that it may be a valuable test of his protection from casual variola: but the fact that, however mild in itself, it may communicate the most malignant form of the disease to another, is one which renders it a dangerous agent, the use of which, independently of other reasons, should be restricted within narrow limits, and, indeed, prohibited altogether, from the risk unavoidably attendant upon its general employment."

The sixth lecture presents a most excellent and sufficiently full summary of the pathology and treatment of measles, while the two ensuing lectures are devoted to the consideration of scarlet fever. The description of the several forms under which the disease ordinarily presents itself, and of its usual sequelæ, is clear and accurate. In treating of the pathology of the disease, Dr. G. remarks that, while "no doubt exists that, in a very large proportion of cases, scarlet fever is the product of a specific miasm," still, "the question may well arise, whether any combination of circumstances can develop an eruption possessing the characters of scarlatina," and he admits that his testimony is in the affirmative.

"I have seen scarlet eruption," he adds, "in no respect different from that of ordinary miasmatic scarlatina, arising from exposure to cold and moisture, and I often see true scarlatinat eruptions occurring in the progress of the secondary fever of small-pox, without any grounds for believing that contagion had operated. It seems as if secondary fever can develop this eruption in the same way as it throws out erysipelas."

We are familiar with an eruption closely resembling that of scarlatina, occurring under the circumstances referred to by Dr. G., but believe it to be of a very different character from the latter. The persons in whom the eruption occurred could not with any propriety be said to be labouring under scarlet fever. Of the occurrence of true scarlatina independent of exposure to any specific poison emanating from the bodies of patients affected with the disease, there can be no doubt; that epidemical visitations of the fever may occur from some morbid condition in the atmosphere, is, we believe, very generally admitted; but in the

absence of this epidemic influence, we have repeatedly observed sporadic cases of unquestionable scarlatina occur under circumstances where it was impossible that the patients could have been exposed to contagion either directly or through the medium of fomites.

On the subject of bloodletting in scarlet fever, Dr. G. makes the following judicious remarks:—

"Some physicians discourage all loss of blood in scarlatina, as being foreign to the genius of the disease. Others strongly advise it. Much will depend upon the character of the symptoms, the period of the disease, the condition of the patient; but I wish to impress upon you strongly, that scarlet fever not only admits of bloodletting, but often imperatively requires it, and that on general bleeding alone the safety of the patient often depends."

"While I thus advocate the necessity of bloodletting in certain cases, I freely acknowledge that it is inapplicable to others. You would not always do harm by the attempt (for it is one thing in scarlet fever to open a vein, and another to draw blood); but any such indiscriminate use of the remedy would expose you and the remedy to just reproach. The successful treatment of the disease by bleeding in one epidemic, at one season, and in one district, does not authorize the same procedure in another epidemic, a different season, or a different locality."

"Local bloodletting is well adapted to many cases of scarlet fever—to cases accompanied with great determination of blood to the throat—to cases attended with headache or threatening coma." "In the management of the several inflammatory sequelæ of scarlatina (otitis, ophthalmia, and pneumonia), leeches and cupping are quite indispensable."

"Leeches generally bleed profusely in scarlatina, from the excited state of the cutaneous circulation. Four leeches in scarlatina will often do as much as twelve in typhus. It becomes occasionally necessary to stop the bleeding, which lunar caustic will do effectually. This tendency of leech-bites is always to be kept in view, but especially in the scarlet fever of young children. The child's life might otherwise be sacrificed, and the measure itself brought unfairly into disrepute."

"I cannot doubt but that a large proportion of cases of scarlatinal dropsy arise from the neglect of measures which ought to have been adopted in an earlier stage of the disease. If a certain amount of bloodletting, a certain number of doses of calomel and jalap, a certain amount of rest and abstinence had been indicated, but neglected or withheld, then, when dropsy occurs, the deficiency must be made up. The same things must be done late, which ought to have been done early."

Erysipelas is the subject of the ninth lecture. This disease, though not properly an exanthem in the strict pathological meaning of the term, bears, however, in many of its features, so close an affinity with the febrile exanthemata, that it is most conveniently treated of in connection with them. Erysipelas is, properly speaking, inflammation of the skin, and very commonly also of the subjacent cellular texture. Very good reasons might be advanced, therefore, why it should be transferred to the phlegmasiæ; but, with our author, we consider this a subject "not worth wasting time about."

In considering the causes of erysipelas, and the manner in which it spreads, Dr. G. first adduces the facts which prove it to be an epidemic malady, and which satisfactorily, to his mind, show that its most important source is miasmatic; he then explains the reasons which induce him to believe that this miasm, when formed, is capable of propagating itself by contagious emanations, and, in conclusion, points how erysipelas originates from causes not of a specific nature, some internal and others external to the human frame.

After referring to facts bearing upon the epidemic and contagious character of the disease recorded by Sauvages, Baillie, Calmeil, Velpeau, Blache, and Chomel, and the list might have been extended to a much greater length, Dr. G. remarks:—

"A connection of more than twenty years with the Small-pox Hospital has given me abundant opportunities, not only of confirming the truth of these positions, but of showing that we may carry our views much further. I feel

persuaded, 1st. That erysipelas may commence in a hospital without the suspicion of importation. 2. That being so generated, from bed to bed, it may spread by contagion. 3. That the miasm generating erysipelas is identical with that which, in lying-in hospitals, generates puerperal peritonitis, which, in foundling hospitals and workhouse nurseries, gives rise to pudendal gangrene and umbilical ulceration; which in army hospitals generates hospital gangrene; which in hospitals differently circumstanced, is found to occasion a malignant form of cyanæhe, both mucous and cellular, with otitis, glossitis, an asthenic form of laryngitis, and sometimes the most aggravated form of typhus gravior."

"The dependence of erysipelas on a miasm *sui generis* is no new doctrine. It has been stated, over and over again by individual writers, but it has never, I think, been urged by systematic authors with the importance which it merits; nor has the doctrine been received as one of the avowed axioms of pathology. Dr. Rollo, in a treatise entitled, '*A Short Account of a Morbid Poison acting on Sores*,' and published very early in this century, distinctly announces the principle, and illustrates the intimate connection between erysipelas and hospital gangrene."

The circumstances which lead to the generation of the miasm productive of erysipelas, which Dr. G. denominates "*ochletic miasm*"—from *οχλος*, a crowd, are, according to our author, 1st, and most important, overcrowding the wards of an hospital.

"But," he remarks, "it is not numbers alone which are to be considered; a ward might safely hold fifty cases of simple fracture, which would not with safety contain twenty cases of compound fracture. Something, therefore, depends on the nature of the disorder. All disorders which throw out diseased secretions are more apt to taint and vitiate the air than those where no such secreting process goes forward."

"Another element of great importance in determining the sources of ochletic miasm is the degree of attention bestowed on cleanliness. If the bed-linen, mattresses, palliases, sheets, and blankets be frequently changed, the floors well cleaned, and the walls frequently whitewashed; if the nurses be careful to carry away all foul secretions, and to purify the patient's body by abundance of soap and water; in short, if the internal regulations of the hospital be good, miasm would, I suppose, be rarely engendered, even though the wards were crowded."

"A fourth element must enter into the calculation, and that is a good supply of fresh air. This, by some, is considered all in all; but it is not so, and all the ventilation in the world, conducted on the most scientific principles, and superintended by Dr. Reid himself, would fail in preventing ochletic miasm, if feather-beds and bolsters, soaked in unhealthy discharges, are permitted to remain in the ward.

"Dr. Rollo has advanced a step further in the analysis of the sources of ochletic miasm, and maintains that the disposition to erysipelas and its co-relative diseases (puerperal peritonitis and hospital gangrene) depends partly on a peculiar but hitherto undetected condition of the atmosphere. He is led to this opinion by observing that erysipelas sometimes shows itself in the airiest, least crowded, and best regulated hospitals. Without stopping to inquire how much is due to this circumstance, we are fully warranted in saying that the state of the atmosphere must not be lost sight of in such an investigation. We know, on the authority of Dr. Lind, that in Batavia, and other localities notorious for malaria, hospital gangrene and erysipelas, and every sort of associated disorder, prevail with intensity at certain seasons."

The facts adduced by Dr. G. in proof of the spread of erysipelas by contagion bear no proportion to the vast amount of direct testimony that might be brought forward, from sources of unquestionable authority, in support as well of this position as that of the intimate correlation of erysipelas and puerperal fever. As we believe both positions to be well founded and of the highest importance in directing us to the prophylaxis of peritonitis in the puerperal female, we are gratified to find so popular and distinguished a writer as Dr. G. engaged in their advocacy. We have long maintained the contagious character of erysipelas and its intimate relation with child-bed fever, and have been considered as somewhat



visionary in so doing; the evidence in support of the accuracy of these opinions is constantly augmenting, and every day attracting increased attention.

A very good summary of the treatment of erysipelas is given. Although we cannot agree with the author in his estimate of some of the remedies that have been recommended in the disease, yet, upon the whole, his therapeutical directions are judicious.

In the tenth and eleventh lectures, Dr. G. gives the history, phenomena, practice, pathology, and results of vaccination. Dr. G. denies *in toto* the opinion recently promulgated, and adopted very extensively by the physicians of Europe and America—the identity, namely, of cow-pox and variola. The objections he adduces to this opinion are of great weight, and his conclusions would appear to be correct: namely, that

“Small-pox and cow-pox are antagonist affections—that cow-pox, instead of being, as Dr. Baron maintains, of a variolous, is, in fact, of an *anti-variolous* nature—that it alters and modifies the human constitution so as to render some individuals wholly, others partially, and for a time, unsusceptible of small-pox. Cow-pox and small-pox may be viewed as opposing powers, striving to gain the mastery of the human frame, and each, under different circumstances, and at different times, proving successful. The conclusion to which M. Bousquet (*Traité de la Vaccine*, p. 16) has come to, appears to me to be the just one. ‘La vaccine,’ says this acute writer, ‘et la variole ne sont pas la même chose. Mais si elles diffèrent dans leur origine, dans leur principe, elles se suppléent merveilleusement dans leurs effets. Il n’y a pas entre elles identité de nature, mais il y a réciprocity d’action.’ To my mind, nothing can be more satisfactory than such a conclusion.”

We cannot see in what manner our confidence in its protective powers can in any degree be strengthened by supposing that the cow-pox is identical with small-pox, or how it is possible, as asserted by one writer, “that a conviction of the non-identity of the two diseases would go far to shake *in toto* our belief in the real efficacy of vaccination.” Our confidence in the efficacy of vaccination is founded solely upon the well-established fact that the great majority of those who have been placed fully under its influence resist the infection of small-pox under every degree of exposure. A knowledge of the true nature of the vaccine disease would be interesting, perhaps useful; but it can neither strengthen nor overturn the fact just referred to.

Dr. G. believes that the protection against small-pox afforded by vaccination diminishes or wears entirely out in a few years.

“It is a matter of general notoriety,” he remarks, “that small-pox is very seldom taken by vaccinated children who are under the age of eight years. In the course of a long experience at the Small-pox Hospital, I have never seen more than three or four instances of such an occurrence. The protective power of cow-pox may, therefore, for all practical purposes, be considered as *complete* for that period; but we are compelled to confess that later in life it diminishes in a certain proportion of cases. What the exact proportion of cases is, never has been ascertained, and, for very obvious reasons, never can be known or even guessed at.

“But although this be impossible, there seems no reason why we should not attempt to ascertain the laws which affect and limit that power of resistance to the variolous virus which cow-pox displays in so many instances, and so remarkably in infantile life. I have mentioned puberty as a disturbing cause. I have no doubt that others exist, of equal, perhaps of superior efficacy. Among them may be mentioned change of climate, which appears to have a very marked influence, sufficient to induce us to recommend the re-vaccination of all young people going to or returning from India. A severe fever, in like manner, may so alter and modify the general mass of fluids as to open a door to the reception of the variolous effluvia. Importance should be attached also to the epidemic constitution of the season. It is certain that persons who under common circumstances have, through the agency of the cow-pox, resisted the variolous miasm, succumb to it under epidemic visitation.”

“The preceding tables”—tables given in a former part of this lecture, but which we have not considered necessary to copy—“while they certainly counte-

nance the notion of diminished vaccine energy, through the medium of those changes which time effects in the frame, prove, at the same time, most incontestably, that a portion of virtue still clings about the system, sufficient to preserve life, though not to exhaust susceptibility. To determine with accuracy the average ratio of mortality which obtains when small-pox invades those who have been well vaccinated, is a point which the statistical records of the last twenty years teach us with considerable precision. You will remember that small-pox in former times (and among the unprotected in recent times) proved fatal at the rate of twenty-five, or from that to thirty-three per cent. (one out of four, or one out of three.)

*"Table showing the Rate of Mortality by Small-pox after Vaccination at Different Periods and in Different Parts of the World."*

Locality.		Number of cases.	Deaths.	Rate of mortality per cent.
Small-pox Hospital, London,	1826 to 1832	619	40	7
"	1833 to 1839	900	60	7
"	1840 to 1846	1011	64	6½
Total at	1826 to 1846	2530	164	7
British army	1834 to 1838	1025	122	12
Copenhagen	1824 to 1835	3093	66	2
Wirttemberg	1831 to 1836	1055	75	7
Vienna	1834	200	16	8
Ceylon, Epidemic of	1830	260	34	13
"	1833 to 1834	341	23	7
Total		8504	500	6

"The above table, compiled from various sources, will show how great is the diminution in the ordinary rate of mortality by small-pox, when vaccination has preceded. It will be seen that the average rate is then six per cent., the maximum being thirteen, and the minimum two.

"The result of these statistical investigations may be stated to you in a few words. Small-pox in the unvaccinated is five times more fatal than it is to those who have previously undergone vaccination. The following table, carefully drawn up from the records of the Small-pox Hospital for the year 1841, shows you how this is effected. It is an analysis of the several cases admitted in that year, having small-pox after vaccination. It will be seen that nearly two-thirds of the cases (or sixty per cent.) received the disease in a modified form. The remainder (forty per cent.) received it in a normal form, but in variable degrees of intensity, the mortality among them following the ordinary law.

*"Analysis of one hundred and fifty-one cases of Small-pox succeeding Vaccination, which occurred at the Small-pox Hospital in 1841."*

			Admissions.	Deaths.
Normal	56	{ Confluent . . . . .	25	8
		{ Semi-confluent . . . . .	19	0
		{ Distinct, regular . . . . .	12	1
Abnormal or modified	95	{ Confluent, modified . . . . .	18	0
		{ Semi-confluent, modified . . . . .	19	1
		{ Varicelloid, or distinct modified . . . . .	58	0
Total . . . . .			151	10

"Deducting the two deaths among the milder cases, which were the result of superadded disease, there remain eight deaths. Now, supposing that these 151 persons had never been vaccinated, the mortality would have been at least five times eight, or forty, and might, under unfavourable circumstances, have reached fifty. Such appears to be the actual amount of the protection which vaccination affords, and with it, such as it is, we must, I believe, rest satisfied. My firm persuasion is, that no additional precautions on the part of vaccinators, and no alterations in the kind of lymph employed, will have the slightest effect on the general results."

The number of the vaccinated who are liable to an attack of small-pox, in either its normal or modified form, will depend very much upon the greater or less care that has been taken to place the systems of all subjected to the operation fully under the vaccine influence. That all who are reputed to have been *successfully* vaccinated, are not thus completely infected, there cannot be a doubt. Independently of gross ignorance and carelessness on the part of vaccinators, there are many circumstances that may occur to interfere with the regular progress of the vaccine vesicle, and to prevent the system from being brought perfectly under the protective influence of the vaccine infection, that cannot always be anticipated and guarded against; consequently, there will be in every community, even in those where vaccination is most extensively and carefully practiced, many who are but partially protected against small-pox, from the imperfect manner in which they have undergone that process, while others are placed in the same predicament from the possession of some constitutional peculiarity, in consequence of which their systems cannot by a single, nor often even by repeated vaccination, be brought entirely under the influence of the vaccine influence. Now, we have no other test that an individual is fully protected by vaccination than the repetition of the operation after some interval of time; and, at the same time, by this re-vaccination, we remedy, in most cases, the imperfect infection produced by the previous operation.

It is true Dr. Gregory would appear to be rather opposed than favourable to re-vaccination; nevertheless, the weight of testimony is decidedly in favour of the operation. The physicians of this city, who were at first adverse to re-vaccination, have become convinced, from personal experience, of its value, and now, very generally, practice and advocate it. A respectable array of evidence in favour of this measure, derived from the experience of the physicians and institutions of Europe, where re-vaccination has been practiced on a large scale, and in a manner well calculated to test its results, is given, in the Appendix to the present edition, by Dr. Bulkley.

Of the two remaining lectures, the thirteenth and fourteenth, the one is devoted to the consideration of the vesicular eruptions, and the other to a short notice of the non-contagious efflorescences. This portion of the work may be consulted with profit by the student. The information in respect to the pathology of the diseases comprised under the two general heads, though concise, is clear and accurate, and the directions for their management plain and judicious.

The Notes and Appendix of the American editor form an interesting addition to the text of Dr. Gregory. They enhance materially the value of the present edition of his lectures.

D. F. C.

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ART. XX.—*Elements of General and Pathological Anatomy, presenting a View of the Present State of Knowledge in these Branches of Science.* By DAVID CRAIGIE, M.D., F.R.S.E., etc. etc. Second edition, enlarged, revised, and improved. Philadelphia: Lindsay and Blakiston, 1851. 8vo. pp. 1072.

THE treatise of Dr. Craigie, though less full, perhaps, in some particulars than could be desired, and especially in reference to the morbid changes detected by the microscope, to which, within a recent period, so much attention has been paid by the physicians of continental Europe, is nevertheless one of the best compendiums of the elements of general and pathological anatomy we possess. By availing himself of the most reliable sources for his materials; by comparing and generalizing, with fidelity, the results arrived at by those who have investigated with the greatest care the leading subjects embraced in the general plan of the work; and by arranging, in a connected and systematic form, those deductions and inferences that are justified by an accurate analytic collation of the best authenticated facts, Dr. Craigie has succeeded in placing within the reach of the student a volume well calculated to furnish him with correct statements and useful information on the nature and distinctive characters of diseases, as revealed to us by pathological anatomy.

In preparing the present edition, all the materials of the first have been employed. But they have been greatly increased by the introduction of new mat-

ter under the proper heads, in order to carry forward to the present time the information acquired since the appearance of the first edition. Numerous rectifications, both in healthy and morbid anatomy, have also been made.

Besides the changes now mentioned, two new books have been added: one on the structure and morbid states of the glands; the other on the structure and morbid states of the lungs and heart.

There is but one department of pathological anatomy not embraced in the present volume, and that is local diseases, and those varieties of malformation which consist in misapplications of the component parts of organs. In noticing this omission, the author, in his preface, remarks, that these subjects, it is almost superfluous to say, cannot, without a violation of the principles of arrangement, be introduced in a work on general anatomy; on this account, however reluctantly, he has been obliged to exclude them almost entirely, unless so far as their general characters could be stated.

D. F. C.

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ART. XXI.—*The Microscopist: or a Complete Manual on the Use of the Microscope: for Physicians, Students, and all Lovers of Natural Science.* With illustrations. By JOSEPH H. WYTHES, M. D. Philadelphia: Lindsay and Blakiston, 1851.

THIS is the title of a handsome little book, of 182 pages 12mo., which is neatly printed, and is illustrated with many well-executed wood-cuts.

As this is the first American work upon a subject which is now exciting considerable attention, it will probably be extensively circulated and read. We regret that it is not better calculated to advance the knowledge of the microscope, and its relations to natural and medical science. A "complete manual" on this subject would be a valuable acquisition to the American student of medicine and of general science; but every one who purchases this book with the expectation of becoming thoroughly acquainted with the instrument, either practically or theoretically, will be exceedingly disappointed.

A student possessed of a microscope can learn nothing of its plan of construction or its manipulation unless it happens to be of the same form and manufacture as that figured on the frontispiece.

The table of contents is sufficiently full. It contains, Chapter I. History and importance of the microscope. II. The microscope. III. Adjuncts to the microscope. IV. How to use the microscope. V. On mounting and preserving objects for examination. VI. On procuring objects for the microscope. VII. Test objects. VIII. On dissecting objects for the microscope. IX. The cell-doctrine of physiology. X. Examination of morbid structures, &c. XI. On minute injections. XII. Examination of urinary deposits. XIII. On polarized light. XIV. Miscellaneous hints to microscopists. But the amount of information upon each of these subjects is so extremely limited that the book will be found entirely unsatisfactory to all but those who are content with a superficial knowledge of the subject.

What is said concerning the history of the microscope, its adjuncts, and their uses—the procuring, preparing, and mounting objects—is taken principally from Queckett's work, to which all those interested in the microscope had better directly refer for information. The chapters on the cell-doctrine, morbid products, and urinary deposits, subjects particularly interesting to the physician, are extremely meagre; of course they cannot be otherwise in a work of this size. They would fail to instruct a student who was entirely ignorant of the subject; and a properly educated physician would merely be reminded of textbooks and well-known treatises of the present day.

Since, therefore, it contains nothing new concerning either the philosophical, mechanical, or practical bearings of the microscope, and certainly nothing original in minute anatomy, physiology, or pathology: and since it contains so little of that valuable information which is already published in works quite accessible, we are at a loss to conceive of any benefit which will be conferred by its publication.

J. N.

ART. XXII.—*The Philosophy of Vital Motion.* By CHARLES BLAND RADCLIFFE, M. B., Licentiate of the Royal College of Physicians; Lecturer on Vegetable Physiology and Botany at the Westminster Hospital, etc. etc. London, 1851. 8vo. pp. 158.

WE believe that we shall best communicate to our readers an idea of the kind of philosophy taught in the volume of Mr. Radcliffe, by presenting to them the author's preface, which is as follows:—

"In a work lately published under the title of '*Proteus, or the Law of Nature*,' I have endeavoured to realize that unity, or *τὸ ἓν*, which is said to ensoul the diversities of things, and bind them together in one. I have traced this principle in plant and animal, not merely as a vague generality, but as pervading the entire structure—from a simple organ to a perfect organism, and from the complicated nervous, vascular, or osseous systems, to the more rudimentary parts of the economy. I have traced, also, the same principle into inorganic bodies; so that, in relation to form, we may conclude that there is one archetypal law in all created things, whether animate or inanimate. Heat, light, chemical affinity, electricity, motion, and other physical agencies, have also been found to be connected with each other, and with the more recondite vital influences, as correlative aspects of one central force; so that the unity of creation is reflected in force as well as form. And finally, this principle has seemed to be absolute, for on proceeding onwards it is seen to be impossible to separate form from force, and to regard the one as a mere lifeless image, or the other as a mere 'naked essence.'

"But it may be objected that all these ideas are mere philosophical abstractions, and that this unity of nature is not a practical truth to be realized in the problems of everyday physiology. If there be this oneness of which you speak, it may be asked, how is it that the body is obedient to a law which is totally different to anything we find in inorganic nature? Will it explain the hitherto inexplicable capillary movements of the blood? Will it solve the oft-perplexed, and still unread riddle of muscular action? Will it tell us why the heart continues its mysterious beatings? Will it give the clue to a hundred acts and movements which are distinctive of life, and which we are obliged to refer to an incomprehensible and potent essence which is shut up in every living body? for, except it will help to do these things, the doctrine is of no practical value. An objection like this is just and right, for no one can be expected to receive an opinion which is based merely on transcendental facts and arguments, especially when it is belied (or seems to be) by his own daily experience.

"Let us encounter, then, this objection on the grounds that are here indicated, and inquire whether the *phenomena of vital motion* will not receive light and interpretation from the doctrine they seem to contradict. Remembering the arguments for a common law, let us not seek the explanation in the body alone in which the movements are manifested, but in a wider range of causes. Let us treat unity as reality and not as a fiction, and wait patiently for the result. If we do this, every phenomenon will be found to point to this truth; and this truth, on the other hand, by enlarging our ideas to receive the comprehensiveness of nature, will enable us to advance far towards the explanation of vital motion. If we do this, the movements of blood or other nutrient fluids in vessels independently of any cardiac impulse, the action of muscle, the beating of the heart, and many other mysteries of life, will no longer perplex us, for each will interpret the other; and all will refer to a common law—cosmical—one."

If we understand our author correctly, and we are not so sure that we do, for his language is often anything but clear and explicit, nor are we very certain that he has himself always a very definite conception of the idea he desires to convey in many of the loose and mystical sentences with which the work abounds;—if, however, we have not mistaken his meaning, he refers the vital movements of the living organism to "the several forces of ordinary matter, namely, heat, chemical affinity, electricity, and the rest," and that even what may be termed the vital and peculiar principles, are either mere modifications of these several forces, or else the motors of them.

He urges his readers to "banish the notion that the causes of vital movement *must*, of necessity, be different from those which determine motion in inanimate bodies."

In regard to the development of the primary germs or nuclei of the organic fluids, he remarks, "We may argue that expansion is inevitable under the operation of heat, and thus it is possible to conceive that the enlargement of growth may be no mysterious property, but only the natural result of the operation of heat upon the substance. Even the formation of the cavity, by which the originally solid nucleus is converted into a hollow vesicle, may also be a part of the same process, for under the operation of an expansive force the particles of these minute fabrics will tend outwards from the centre."

"The force connected with the process of respiration must," according to Mr. Radcliffe, "be considered, in great part at least, as physical and mechanical in its character—for it is difficult to attach the idea of vitality to a change so closely allied to combustion and putrefactive disorganization: and the more so, as the effects upon the capillaries may be explained by this means. The dilated condition of the vessels, when the function of respiration is vigorous, may be regarded indeed as the natural consequence of the free extrication of heat, which must take place under these circumstances, and the shrunk and contracted condition when the process flags, as an equally necessary consequence of the diminished supply of the same agent."

In relation to muscular motion, upon which Mr. Radcliffe entertains many very peculiar and heterodox opinions, he remarks, in concluding his examination of the subject:—

"We have reviewed the phenomena of voluntary muscular action in relation to the several correlated aspects of physical force, and from this examination it appears that the muscles are subject to each and all of these agents, as inorganic bodies are subject. Heat, light, electricity, and chemical agency are all correlative of motion, and this latter aspect of force, so far as we may judge, is not different from the motion which is correlative of these forces in inanimate nature."

The following quotation will exhibit the opinion of our author in respect to the nature of nervous influence:—

"The physical mode in which the nervous influence affects the capillary vessels, for there is such a tangible mode of action, may be ascertained without any difficulty. When, for instance, the mind is paralyzed by fear, the skin becomes pale and blanched, in consequence of the shrinking of its vessels; and not only so, but if the bodily frame be fragile and delicate, the deadening influence extends to the heart, and a state of syncope or entire suspension of circulation is the result: when, on the other hand, the frame thrills under the excitement of joy, and the nervous power is exuberant, the countenance becomes radiant, the skin is suffused with blood, and the heart beats with increased vigour. These phenomena afford a twofold illustration of the importance of the nervous principle as an 'agent of life,' and the nature of the agency physically considered.

"As evidenced in the capillary vessels, therefore, the effects of an exuberant or deficient supply of nervous influence are identical with those which attend the communication or withdrawal of that physical agent (heat) with which we have been already occupied—so identical, indeed, that we naturally inquire whether the higher and mystical force does not operate through, and by means of, this ordinary agent. Independently of any unintelligible theories on the subject, it would appear that the peculiar nature of the nervous system, and the relation which this system holds to the rest of the organism, would authorize such a conjecture. The composition is of cells and fibres, constructed upon a common type, and moulded from a common plasm, with the other parts of the body; and structurally, therefore, there is no sufficient reason to suppose speciality of attributes. Nerve and ganglion, also, dissolve away under the ordinary destructive agencies which act upon the body, and change into new chemical compounds, identical in nature and history with the compounds which result from the disintegration of the rest of the organism. Viewing the question, therefore, in connection with genesis, as in the act of nutrition elsewhere, a certain amount of ordinary physical force must attend the formation of nerv-

ous matter: and viewing it in connection with destruction or disintegration, or, in other words, in relation to the respiratory function, the chemical affinity, which is here in active play, is but another name for the same force. A proportionate destruction of tissue is also involved in the development of nervous influence; and in this respect, as in other varieties of force, the nervous influence may be regarded as the exponent of a certain condition of change in matter.

"For these reasons it must be admitted that ordinary physical agencies constitute a part, at least, of nervous power; nay, more, that the degree of the one is commensurate with that of the others. It is impossible, moreover, to conceive the idea of ordinary force being present and inoperative; and it can scarcely be imagined that the nervous power which is superadded to the more commonplace agents should have a different law of action; otherwise, the one might negative the other. Whatever difference of essence, reason and experience argue a community of operation; for, so far as the capillary vessels are concerned, the effects of an insufficient or excessive supply of nervous influence are similar to those which attend equivalent alterations in the intensity of ordinary force. Such, indeed, are the facts already cited in connection with the history of fear and joy as to allow it to be supposed that the nerves act upon the capillaries, not by the sur-addition of any new agency, but by means of that which is already in operation—by that, namely, which is the necessary exponent of the molecular changes in the material part of the nervous substance."

The physiological facts and considerations, remarks Mr. R., are of such a character as to allow us to suppose an intimate relation between the nervous influence, physically considered, and the ordinary force of matter—a relation

"So intimate, indeed, that the former may be regarded as a mere modification of the latter, not essential to the functions of vegetables, or of the lowest tribes of animate existence, but superadded in order to intensify the vitality of higher and more favoured creatures."

In order that our readers may be in possession of our author's entire doctrine, as set forth in the volume before us, of the nature of the nervous influence as an agent in vital movement, it is necessary to add to the preceding quotation the following, from the fifth chapter:—

"In the preceding chapter, it has been found that nervous influence and the other forces of organization agree in their mode of action, and that all these vital and physico-vital agencies co-operate harmoniously with the several varieties of extra-organic force—and hence we may infer, with very sufficient reason, that nervous influence is nothing more than a modification of cosmical force."

"In another work, it has been shown that the nervous system is formed upon the same archetypal plan as the other parts of the body, and even of the body itself, and that the same plan is extended to what are called inanimate bodies; and in this unity of the material framework of things there is another reason for supposing the nervous influence to be a variety of cosmical force. It has been shown, also, in the same work, that all forms of physical and vital force are truly correlative: and hence a final argument in favour of the view that the nervous influence is a variety of cosmical force."

"We are not taught, however, by these considerations to do away with the idea of nervous influence, though we regard it in this point of view, or to ascribe its workings to electricity, or heat, or light, any more than we should confound the existence of light, or heat, or electricity, and say that either of these agents was identical with the others. Correlation, in fact, involves the idea of unity, but it as distinctly retains that of difference. Nor are we to confound nervous influence with mind, for—if it be as we have said—it is clear that it can have no exclusive claim to be considered as identical with this essence."

"The nervous influence, therefore, is to be regarded as one of several modes of cosmical force, which reacts harmoniously with all companion agencies in the determination of vital movement."

The concluding chapter treats of "the action of mind in vital movement." Of this portion of the author's treatise we can furnish our readers no account.

We candidly confess that we have been unable to catch the author's meaning. His language is throughout mystical and indefinite; his arguments, so far as we can understand them, vague and inconclusive; many of his illustrations are irrelevant; while others, as for example his evidence of the conscious state of the mind after death drawn from the imagery of the parable of the rich man and Lazarus, are exquisitely ridiculous.

The work of Mr. Radcliffe, though it unquestionably embodies many important truths, is certainly but ill adapted to advance materially our knowledge of the philosophy of vital motion.

D. F. C.

ART. XXIII.—*Observations on the Diseases of the Rectum.* By T. B. CURLING, F. R. S., Surgeon to, and Lecturer on Surgery at, the London Hospital, etc. London, 1851.

MR. CURLING is already favourably known to the profession by his "Essay on Tetanus," and by his more recent treatise on the "Diseases of the Testis." The volume of which we have given the title above is a very unpretending one of 123 pages octavo. The author does not profess to present a complete treatise on the diseases of the rectum, but rather "to offer such views of pathology as may lead to judicious practice." After a careful perusal of the book, we cannot see that Mr. Curling has presented therein any important novelty; but we can bear cheerful testimony to the soundness of his pathological views and to the judicious practice which he advocates.

The diseases of the rectum of which he treats are, in special chapters, Irritable Ulcer, Spasm of the Sphincter Muscle, Hemorrhoids, Prolapsus, Polypus, Fistula in Ano, Chronic Ulceration, Stricture, Cancer, Feces impacted in the Rectum, and Anal Tumours and Excrescences. These are preceded by some general observations on the peculiarities which attach to the affections of this part of the body and to the operations for their relief.

In order to form a correct diagnosis of most of these complaints, the use of a *speculum* is essential. Mr. Curling, having found the instruments in common use more or less defective, has had made "a plated speculum of a conical form, so as readily to penetrate the sphincter, with a side opening of sufficient width and carried to the blind extremity of the instrument; and instead also of a movable piece, an ebony plug is substituted, having a plate which fits close into the aperture. The plug admits of being more readily removed and replaced than a slide." A drawing of this instrument accompanies the text.

In describing the *irritable ulcer* of the rectum, Mr. Curling calls attention to its dependence upon, or connection with, the rectal pouches, and shows that it is not unfrequently mistaken for a *fissure* of the mucous membrane, because when it is examined while the rectum is not distended it presents a linear appearance. The symptoms of this troublesome and painful affection are well narrated. The treatment which the author advises, in common with most other surgeons, consists in making a longitudinal incision through the ulcer, including also the sphincter muscle. He says, "the cutting edge of a straight blunt pointed bistoury is to be applied to the centre of the ulcer, which is to be divided by an incision extending to the internal sphincter. The fibres of this muscle are easily felt with the left forefinger, and the depth of the incision regulated accordingly. When the ulcer is situated in the front part of the rectum, it should be divided a little to one side, or the wound will not heal readily; and besides, in the female the division towards the vagina may cause incontinence of feces." When this operation cannot be performed, from objection on the part of the patient or other cause, he advises rest, the employment of mild laxatives, and the local application of sedative and astringent or stimulating ointments. He particularly recommends, if the ulcer be very sensitive, and the spasm of the sphincter considerable, the use of an ointment containing chloroform, as follows: R.—Chloroformyl ʒj—ʒij; zinci oxidi ʒss; olei olivæ ʒj; cerat. cetacei ʒiv. M. ft. unguent.

Spasm of the Sphincter Muscle is the subject of the next chapter. It is described as occurring much more frequently in females, particularly those of great nervous excitability, than in the male. The symptoms are similar to those



of the irritable ulcer, though less severe, and the feces are not streaked with blood or pus, as in the other case. The speculum should be employed to certify the diagnosis, the patient having been previously subjected to the anæsthetic influence of chloroform to relax entirely the sphincter. In ordinary cases the treatment which Mr. Curling counsels comprises the local direct application of an ointment containing belladonna, opium, or chloroform to the mucous membrane covering the sphincter muscles, and the employment of iron, with sea-bathing, attention to the condition and functions of the uterus, etc.

The succeeding chapter on Hemorrhoids is very full and instructive. In the cutting operations which may be practiced for their relief, the author very properly points to the liability to troublesome bleeding and the expedients for arresting it. These observations, as well as those which follow, upon Polypus, Prolapsus, Fistula in Ano, and Chronic Ulceration of the Rectum, though excellent in themselves, yet offer nothing which we need dwell upon as peculiar to this treatise.

The chapter on Stricture of the Rectum exhibits very well the author's careful study and wise surgical practice. The causes of stricture are ascribed to chronic inflammation of the mucous and submucous areolar tissues of the rectum, more or less limited in extent, and to contraction consequent upon the healing of ulcers, abrasions, or wounds. Mr. Curling considers the last-mentioned circumstances to be more frequent in their occurrence than is generally supposed. He mentions a case of stricture in a child of five years of age, the result of the perforation of the walls of the rectum and vagina by the pipe of a syringe in the endeavour to administer an enema; the child lived ten months after the reception of the injury. The symptoms and the physical alterations are well portrayed, and the treatment is fully detailed. The treatment of this affection must be chiefly mechanical, by dilatation. But before dilatation is commenced, the author advises the direct application of leeches to the inner surface of the rectum at or near the strictured part; Mr. Curling insists upon the necessity of very gentle and gradual dilatation of the stricture; and he considers it of questionable expediency; to attempt this treatment unless the contraction be within reach of the finger, because, when situated farther up the bowel, "there is no way of ascertaining its character, no guide for the selection of a proper-sized bougie, or for using it so as to dilate the contraction; no means, too, of determining positively whether the disease is simple stricture, or that form of disease—the carcinomatous—which is not likely to be benefited by mechanical interference, and in which the use of instruments is attended with risk of perforation." Previous incisions of the strictured part may be resorted to as adjuncts to the dilatation; and in making these, he prefers two or three cuts in different parts of the contracted ring rather than a single deeper division of the stricture, because the former method is sufficient to accomplish the end in view, and is much less likely to be attended with bleeding than the latter, and moreover it does not permit the access of feces and other irritating matter into the loose areolar tissue about the rectum. It is usually taught that a permanent cure, or even a lasting amendment, is rarely to be expected from dilatation of a stricture of the rectum, in consequence of the difficulty of overcoming the rigidity of the altered tissues, and of so modifying them that they may regain their normal physical and physiological properties. But Mr. Curling is more hopeful in this matter. He says: "More extended experience and longer observation of cases have convinced me that, if the dilating treatment be sufficiently prolonged, the areolar tissue may regain its elasticity and be restored to its healthy state, without retaining the disposition to contract and to indurate."

If it be impossible to overcome the contraction, and an operation for opening the bowel above the stricture be determined upon, Mr. Curling gives the preference to Littré's method, in which the incision is made in the left groin. The circumstances which render this step expedient or necessary, and the mode of ascertaining the probable position of the stricture, are ably presented. In short, this chapter will well reward the reader for its perusal.

Concerning Cancer of the Rectum, the book before us offers nothing particularly worthy of remark. Mr. Curling disapproves of excision in this disease, as practiced by Lisfranc and Dieffenbach, notwithstanding the assurances of

the latter surgeon that he has performed the operation on no less than thirty patients, not one of whom died speedily afterwards. In some of these patients, the disease returned in three months. In one, a very large cancer, with destruction of the external skin and perforation of the bladder, appeared within a month; but the larger proportion of cases continued well many years afterwards. "I cannot but think," says Mr. Curling, "that an operation which subjects the patient afterwards to the misery of incontinency of feces and to great risks from a stoppage in the opening from the contraction of the wound, and, in cases where the cancer is sufficiently developed to leave no doubt of its true nature, to an early return of the disease, ought to be condemned. The chance even of a prolongation of life is not worth acceptance on the terms offered by such an operation." It should be condemned, in general terms, we admit, and not presented for the consideration of a patient excepting in its true colors, with all its painful accompaniments and gloomy prospects. But, after all, the Devil's assertion is still true, "Skin for skin, yea all that a man hath will he give for his life," even for a shadowy possibility of life. And the person who is tortured with a cancer of the rectum may perhaps feel that his cup is already so filled to overflowing with bitterness that a few additional drops could scarcely increase his misery, while the prospect of even temporary relief, dim though it be, may to him be worth the hazard; "the forlorn hope" has sometimes gained an important victory.

Mr. Curling alludes also to the Epithelial Cancer, first, we believe, noticed by Rokitsky, as occurring in the large intestine, especially in the sigmoid flexure and rectum, and makes mention of two cases of this form of disease which have occurred in his own practice. He likewise calls attention to one symptom, which is also found in some cases of stricture with ulceration, and which may mislead the practitioner, viz: pain in the hip, accompanied with lameness to such a degree that the patient limps in walking.

The last two chapters respectively treat of the Impaction of Feces in the Rectum, and Anal Tumours and Excrecences. These occupy only a few pages, but contain many useful suggestions concerning the recognition and treatment of these morbid conditions of the part.

We have no hesitation in commending this little book; we think it must contribute to its author's reputation as a wise and careful surgeon. F. W. S.

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ART. XXIV.—*On the Therapeutic Application of Electro-Magnetism in the Treatment of Rheumatic and Paralytic Affections.* By ROBERT FRORIEF, M. D., Public Professor of General Surgery in the University of Berlin, &c. &c. Translated from the German, by RICHARD MOORE LAWRENCE, M. D. London: Henry Renshaw, 1850.

THE above title would lead us to suppose that the affections treated of all belonged to the nosological classes of rheumatism and loss of nervous power; while, in the table of contents, they are all classed as rheumatic. It is doubtful whether this application of terms is correct in some of the cases cited, although, in others, it will apply when restricted to the chronic form of this affection, or perhaps, more properly to the sequelæ of this peculiar form of inflammation. "To find a new, and hitherto unobserved symptom in a complaint of such common occurrence, seems nearly impossible," observes the author. Nevertheless, "a constant and characteristic sign of rheumatic disease," which has never been considered of diagnostic value, but is easily recognized, and bears "exact proportion to the complaint," is to be observed in a peculiar effusion occurring in the cellular tissue, whether subcutaneous or elsewhere; not only as a product of the inflammation, but also as acting mechanically in prolonging the disease. It is to this condition that the electro-magnetic current has been applied, and the cases given are evidence of its value as a local stimulant in relieving the morbid condition. The exact value of the application, and the diagnosis, can only be appreciated by a perusal of the cases themselves; and they afford additional inducements for the use of a much-neglected remedy of considerable power in obstinate chronic affections, especially of a local character accompanied by nervous lesions.

R. B.